

What is claimed is:

1 ~~1. A method of sequentially connecting one or more testing devices to I/O ports of a DUT~~
2 through a switching network, so as to execute a predetermined testing procedure associated with
3 the DUT, comprising:

4 generating a switching network map defining one or more connections within the
5 switching network necessary to implement each of a plurality of electrical paths from an input of
6 the switching network to an output of the switching network, wherein each of the plurality of
7 electrical paths is representative of a connection of one of the testing devices to one of the I/O
8 ports of the DUT;

9 receiving one or more commands, wherein each of the commands uniquely specifies an
10 electrical path connecting a particular testing device to a particular I/O port of the DUT; and,

11 for each of the one or more commands, comparing the command to the switching
12 network map so as to identify a corresponding electrical path through the switching network, and
13 implementing the corresponding electrical path associated the command through the switching
14 network; and,

15 sequentially implementing the electrical paths corresponding to the one or more
16 commands in a predetermined order.

17 2. A method according to claim 1, further including assigning a unique path name to each of
18 the electrical paths, such that each commands specifies a particular electrical path via the path
19 name.

20 3. A method according to claim 1, further including sequentially implementing the electrical
21 paths associated with the one or more commands through the switching network in an order
22 corresponding to a chronological order of the one or more commands.

1 4. A method according to claim 1, wherein the sequentially implementing the electrical
2 paths further includes opening and closing selected switching devices within the switching
3 network.

1 5. A method according to claim 1, further including programming a computer system to
2 issue the commands in the predetermined order.

1 6. A method according to claim 1, further including connecting one or more testing devices
2 to multiple DUT sites via the switching network.

1 7. A method according to claim 1, further including associating each of the electrical paths
2 with a name that is (i) descriptive of the path and (ii) related to DUT.

1 8. A system for sequentially connecting one or more testing devices to I/O ports of a DUT
2 through a switching network, so as to execute a predetermined testing procedure associated with
3 the DUT, comprising:

4 a switching network map defining one or more connections within the switching network
5 necessary to implement each of a plurality of electrical paths from an input of the switching
6 network to an output of the switching network, wherein each of the plurality of electrical paths is
7 representative of a connection of one of the testing devices to one of the I/O ports of the DUT;

8 a controller for (i) receiving one or more commands, wherein each of the commands
9 uniquely specifies an electrical path connecting a particular testing device to a particular I/O port
10 of the DUT, (ii) comparing each of the commands to the switching network map so as to identify
11 a corresponding electrical path through the switching network, and implementing the
12 corresponding electrical path associated the command through the switching network, and (iii)
13 sequentially implementing the electrical paths corresponding to the one or more commands in a
14 predetermined order.

15 9. A system according to claim 8, wherein the switching network includes at least two sub-
16 networks electrically coupled so as to form the plurality of electrical paths.

17 10. A system according to claim 9, wherein said sub-networks include an SCM and a DUT
18 board.

19 11. A system according to claim 8, wherein each of said one or more commands includes a
20 pin name that is (i) descriptive of the path and (ii) related to DUT.